



COMMONWEALTH of VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

CENTRAL LABORATORY  
A Nationally Accredited Laboratory

700 NORTH 5TH STREET  
RICHMOND, VIRGINIA 23219  
(804) 786-6971

CERTIFICATE OF INSTRUMENT ACCURACY

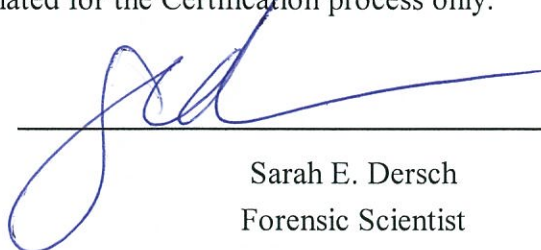
INSTRUMENT: Intox EC/IR II  
SERIAL NUMBER: 010614  
CERTIFICATION DATE: January 29, 2014  
DATE RECERTIFICATION DUE: July 28, 2014

The above listed instrument was found to meet all requirements for accuracy and performance established by the Department of Forensic Science as required by §9.1-1101 (B)(3). Measurement traceability is established through the use of reference materials supplied by an ISO/IEC 17025:2005 accredited calibration laboratory.

Estimation of Uncertainty of Measurement:

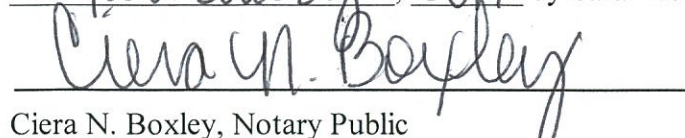
0.020 ± 0.004 g/210 L      0.150 ± 0.007 g/210 L  
0.080 ± 0.004 g/210 L      0.250 ± 0.007 g/210 L

The Uncertainty of Measurement is reported at the 99.73% level of confidence and a coverage factor of k=3. The estimation of the Uncertainty of Measurement is calculated for the Certification process only.

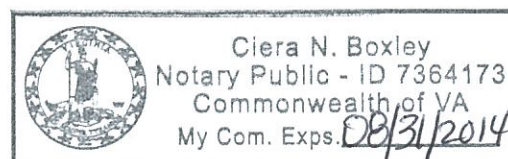
  
Sarah E. Dersch  
Forensic Scientist

CITY OF RICHMOND  
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 18th day of February, 2014 by Sarah E. Dersch

  
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



msk

sd

**Department of Forensic Science**  
**Breath Alcohol Section**  
**Instrument Maintenance History**  
**1/1/1990 To 2/3/2014**

<b>Instrument Serial Number:</b> 010614	<b>As of 03-Feb-14</b>
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Maintenance Date	Certification Date	Technician Initials	Remarks
29-Jan-14	29-Jan-14	SED (24178)	CERTIFIED. REPLACED DRY GAS STANDARD.
15-Aug-13	15-Aug-13	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED. REPLACED DRY GAS STANDARD.
27-Feb-13	27-Feb-13	TLN (25387)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED. REPLACED DRY GAS STANDARD.
06-Sep-12	06-Sep-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
20-Aug-12	21-Mar-12	HMS (18910)	REPLACED PRINTER.
21-Mar-12	21-Mar-12	HMS (18910)	CERTIFIED
23-Feb-12	23-Feb-12	DBH (21250)	CERTIFIED
28-Dec-11	28-Dec-11	MSK (21355)	CALIBRATED AND CERTIFIED.
10-Nov-11	10-Nov-11	DBH (21250)	REALIGNED PURGE FAN. CLEANED INTERNAL INSTRUMENT HOUSING. CERTIFIED
15-Jun-11	15-Jun-11	DBH (21250)	CALIBRATED AND CERTIFIED.
15-Jun-11	15-Jun-11	DBH (21250)	CERTIFIED
03-Jan-11	03-Jan-11	DBH (21250)	CERTIFIED
08-Sep-10	03-Aug-10	DBH (21250)	REPLACED DRY GAS STANDARD
03-Aug-10	03-Aug-10	DBH (21250)	CALIBRATED AND CERTIFIED.
06-Jul-10	06-Jul-10	DBH (21250)	REPLACED DRY GAS STANDARD, CERTIFIED
07-Jun-10	12-Jan-10	DBH (21250)	REPLACED DRY GAS STANDARD
12-Jan-10	12-Jan-10	DBH (21250)	CERTIFIED
03-Aug-09	03-Aug-09	DBH (21250)	CALIBRATED AND CERTIFIED.
09-Mar-09	09-Mar-09	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
15-Dec-08	15-Dec-08	DBH (21250)	CERTIFIED.
20-Nov-08	20-Nov-08	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

sd

# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number 010614 Worksheet Start Date 1/29/2014  
Location Loudoun Co ADC  
Address 42035 Loudoun Center Place, Leesburg VA 20175  
DFS Technician Sarah Dersch License No. 24178

☐ Laboratory ☒ On-Site

Site Specification: No detrimental environmental conditions exist. ☒

Instrument Barometer (mm HG) 757 Reference Barometer (mm HG) 759  
Reference Barometer(RB)Serial # 009111 RB Calibration Due 5/23/2014

## Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.298
0.300	0.298	0.289	0.306	Sample 2	0.298
Precision		sample min	sample max	Sample 3	0.298
0		0.298	0.298		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.099
0.100	0.100	0.097	0.103	Sample 2	0.099
Precision		sample min	sample max	Sample 3	0.099
0		0.099	0.099		

Dry gas standard Lot No. (with tank no.) AG332301-15

☒ Replaced dry gas standard (+O-ring)

☐ Installed at Location

☐ Removed to DFS-Central

Supplies

Mouthpieces

Certificates of Analysis

Operator Worksheet

Other:

150

100

Notes:

Instrument Serial Number

010614

Certification Date

1/29/2014

☐ Calibrated☒ Certified☒ Measurement Assurance Check☒ Instrument Test☐ Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.247
0.250	0.249	0.241	0.256	Sample 2	0.247
Precision		sample min	sample max	Sample 3	0.247
0		0.247	0.247		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.148
0.150	0.149	0.144	0.153	Sample 2	0.148
Precision		sample min	sample max	Sample 3	0.148
0		0.148	0.148		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.079
0.080	0.080	0.077	0.083	Sample 2	0.079
Precision		sample min	sample max	Sample 3	0.079
0		0.079	0.079		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.019
0.020	0.020	0.017	0.023	Sample 2	0.019
Precision		sample min	sample max	Sample 3	0.019
0		0.019	0.019		

All measurements are in g/210L

Estimation of Uncertainty of Measurement and traceability records are located within the Breath Alcohol Section

DFS Technician



Date

2/3/14

Issuing Analyst

  
msk

Date

2/3/14

SED

# **Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010614      Test Number: 1796  
Test Date: 01/29/2014      Test Time: 15:08 EST

Technician Initials: SED

Dry Gas Target: 0.249

Lot Number: 0651225015-02      Exp Date: 04/01/2014

Tank Pressure: 360 psi      Barometric Pressure: 757 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	15:09
BLK	0.000	15:10
CHK	0.247	15:10
BLK	0.000	15:12
CHK	0.247	15:13
BLK	0.000	15:15
CHK	0.247	15:16
BLK	0.000	15:17

## **Success**

Standard Value (at sea level): 0.250 g/210L

Certification Status: Continued

*SED*

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010614      Test Number: 1797  
Test Date: 01/29/2014      Test Time: 15:20 EST

Technician Initials: *SED*

Dry Gas Target: 0.149

Lot Number: 06512150I4-04      Exp Date: 04/01/2014

Tank Pressure: 806 psi      Barometric Pressure: 756 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	15:20
BLK	0.000	15:21
CHK	0.148	15:21
BLK	0.000	15:23
CHK	0.148	15:24
BLK	0.000	15:26
CHK	0.148	15:26
BLK	0.000	15:28

**Success**

Standard Value (at sea level): 0.150 g/210L

Certification Status: Continued

*sid*

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010614      Test Number: 1798  
Test Date: 01/29/2014      Test Time: 15:29 EST

Technician Initials: *SED*

Dry Gas Target: 0.080

Lot Number: 06512080I2-01      Exp Date: 04/01/2014

Tank Pressure: 948 psi      Barometric Pressure: 756 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	15:30
BLK	0.000	15:31
CHK	0.079	15:31
BLK	0.000	15:33
CHK	0.079	15:34
BLK	0.000	15:35
CHK	0.079	15:36
BLK	0.000	15:37

**Success**

Standard Value (at sea level): 0.080 g/210L

Certification Status: Continued

*SED*

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010614      Test Number: 1799  
Test Date: 01/29/2014      Test Time: 15:39 EST

Technician Initials: *SED*

Dry Gas Target: 0.020

Lot Number: 0651202011-07      Exp Date: 04/01/2014

Tank Pressure: 71 psi      Barometric Pressure: 756 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	15:39
BLK	0.000	15:40
CHK	0.019	15:41
BLK	0.000	15:42
CHK	0.019	15:43
BLK	0.000	15:44
CHK	0.019	15:45
BLK	0.000	15:46

**Success**

Standard Value (at sea level): 0.020 g/210L

Certification Status: Success



sid

# Intox EC/IR-II: Accuracy Check

Department of Forensic Science

Serial Number: 010614      Test Number: 1800

Test Date: 01/29/2014      Test Time: 15:49 EST

Dry Gas Target: 0.298

Lot Number: AG321804-04      Exp Date: 08/06/2015

Tank Pressure: 399 psi      Barometric Pressure: 756 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	15:50
CHK	0.298	15:50
BLK	0.000	15:52
CHK	0.298	15:53
BLK	0.000	15:55
CHK	0.298	15:56

Test Status: Success

Calibration CRC: F80233C6

*id*

**Intox EC/IR-II: Accuracy Check**

*Department of Forensic Science*

Serial Number: 010614      Test Number: 1801

Test Date: 01/29/2014      Test Time: 16:00 EST

Dry Gas Target: 0.100

Lot Number: AG332301-15      Exp Date: 11/19/2015

Tank Pressure: 1115 psi      Barometric Pressure: 756 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	16:01
CHK	0.099	16:02
BLK	0.000	16:03
CHK	0.099	16:04
BLK	0.000	16:06
CHK	0.099	16:06

Test Status: *Success*

Calibration CRC: F80233C6




COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

CERTIFICATE OF BLOOD ALCOHOL ANALYSIS  
AS DETERMINED BY A CHEMICAL TEST OF THE ACCUSED'S BREATH

NAME OF ACCUSED <b>INSTRUMENT, TEST,</b>	NAME OF COURT <b>DFS</b>
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BREATH ANALYSIS

SAMPLE EXAMINED AND TEST CONDUCTED BY <b>DERSCH, SARAH, E</b>		AGENCY <b>DFS Central Lab</b>
DFS LICENSE NUMBER <b>24178</b>	LICENSE EXPIRES <b>10/01/2014</b>	DATE TEST CONDUCTED <b>01/29/2014</b>
TEST EQUIPMENT NUMBER <b>010614</b>		

RESULTS: TIME SAMPLE TAKEN 16:15 EST

SAMPLE'S ALCOHOL CONTENT 0.00 GRAMS PER 210 LITERS OF BREATH

ATTEST:

I CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF THE TEST CONDUCTED; THAT THE TEST WAS CONDUCTED WITH THE TYPE OF EQUIPMENT AND IN ACCORDANCE WITH THE METHODS APPROVED BY THE DEPARTMENT OF FORENSIC SCIENCE; THAT THE TEST WAS CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S SPECIFICATIONS; THAT PRIOR TO ADMINISTRATION OF THE TEST THE ACCUSED WAS ADVISED OF HIS RIGHT TO OBSERVE THE PROCESS AND SEE THE BLOOD ALCOHOL READING ON THE EQUIPMENT USED TO PERFORM THE BREATH TEST, AND THAT I POSSESS A VALID LICENSE TO CONDUCT SUCH TEST, GIVEN UNDER MY HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20 \_\_\_\_\_.

BREATH TEST OPERATOR

☐ I HAVE RECEIVED A COPY OF THIS CERTIFICATE OF ANALYSIS \_\_\_\_\_  
SUBJECT'S SIGNATURE

☐ SUBJECT REFUSED TO SIGN FOR COPY OF CERTIFICATE OF ANALYSIS \_\_\_\_\_  
OPERATOR'S SIGNATURE